

(57) **Abstract:** A hydrocarbon material processing system can reduce consumption of fossil fuel, environmental loads, and cost for processing a hydrocarbon material. The hydrocarbon material processing system has a gasification furnace (10) for pyrolyzing and gasifying wastes (51), waste plastics (52), pyrolysis tar (53), residual hydrocarbon heavy oil (54), and organic matter such as biomass (55) to produce a heat source gas. The hydrocarbon material processing system also has a cracking furnace (101) for thermally cracking a hydrocarbon material by using the heat source gas produced in the gasification furnace (10).



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— with international search report